

ABSTRACT

TITLE: An Overview of Atmospheric Composition OSSE Activities at NASA's
Global Modeling and Assimilation Office

Author: Arlinda da Silva
NASA, Goddard Space Flight Center, Global Modeling and Assimilation
Office
Greenbelt, Md. 20771

A model-based Observing System Simulation Experiment (OSSE) is a framework for numerical experimentation in which observables are simulated from fields generated by an earth system model, including a parameterized description of observational error characteristics. Simulated observations can be used for sampling studies, quantifying errors in analysis or retrieval algorithms, and ultimately being a planning tool for designing new observing missions. While this framework has traditionally been used to assess the impact of observations on numerical weather prediction, it has a much broader applicability, in particular to aerosols and chemical constituents. In this talk we will give a general overview of Observing System Simulation Experiments (OSSE) activities at NASA's Global Modeling and Assimilation Office, with focus on its emerging atmospheric composition component.